Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRED STEVEN ISOM

Appeal No. 2003-0236
Application 08/905,701

ON BRIEF

Before BARRETT, FLEMING and OWENS, *Administrative Patent Judges.*

OWENS, *Administrative Patent Judge.*

DECISION ON APPEAL

This appeal is from the final rejection of claims 1-25 and 29-41, which are all of the claims pending in the application.

THE INVENTION

The appellant claims a method for sequencing a plurality of tasks performed or controlled by a computer, wherein the sequencing occurs in an at least two-dimensional field having a

user-changeable directional attribute. Claim 1 is illustrative:

1. A method for sequencing a plurality of tasks performed or controlled by a computer, comprising:

a) placing task objects in an at least two-dimensional directional field having a user-changeable directional attribute, wherein said task objects represent the tasks to be performed by said computer and;

b) sequencing, by said computer, of one or more of the task objects in the directional field based on the relative spatial location of the task objects in the directional field and the directional attribute of the directional field.

THE REFERENCES

Carlson et al. (Carlson)	5,623,592	Apr. 22, 1997
Keller et al. (Keller)	5,767,852	Jun. 16, 1998 (filed Jun. 12, 1996)

Dan Ingalls et al. (Ingalls), "Fabrik - A Visual Programming Environment", *OOPSLA '88 Proc.* 176-90 (Sep. 25-30, 1988).

THE REJECTION

Claims 1-25 and 29-41 stand rejected under 35 U.S.C. § 103 as being unpatentable over Carlson in view of Keller and Ingalls.

OPINION

We reverse the aforementioned rejection. We need to address only the independent claims, i.e., claims 1, 14 and 29.

Each of the appellant's independent claims requires placing task objects in an at least two-dimensional field having a user-changeable directional attribute. It is proper to use the

specification to interpret what the appellant means by a word or phrase, such as "at least two-dimensional directional field having a user-changeable directional attribute", in a claim. *See In re Morris*, 127 F.3d 1048, 1053-56, 44 USPQ2d 1023, 1027-30 (Fed. Cir. 1997). The specification indicates that this phrase means that the at least two-dimensional directional field includes a directional attribute that specifies how the order of tasks within the field is determined such that the user does not need to explicitly link one object to another but, rather, links are created dynamically when the sequence is executed (brief, page 4, lines 1-7).

Carlson discloses a method for automatically performing an experiment having one or more series of operations (col. 2, lines 43-45; col. 5, lines 58-60; col. 8, lines 50-53). A user designs the experiment by copying or moving icons from an icon bar (204) into an experimental design region (206) and associating the icons in the experiment design region with each other to form a sequence which reflects the desired experimental flow (col. 6, lines 36-40). The icons include at least one operation icon which specifies the series of operations (col. 2, lines 54-56). The computer executes a series of instructions which generate control signals to at least one external device to

cause the at least one external device to perform the series of operations in a sequence corresponding to the relative positions of the icons in the sequence of icons (col. 2, lines 49-51, 56-59 and 63-67). A schedule of operations can be built by placing icons from an icon bar (804) onto a time line (808) in an icon sequence region (806) of a scheduler window (800) (col. 12, lines 22-26). The sequence of the icons on the time line determines the order in which the operations are performed (col. 12, lines 29-31). A general sequencing rule for the operations is used, such as from left-to-right, up-to-down or down-to-up, but sequence control icons can be used to change the order of the operations (col. 12, lines 58-61; col. 13, lines 1-5 and 33-35).

Keller discloses a method for altering the scheduling priority of one or more running processes represented by graphical user interface icons and windows (col. 2, lines 51-53). A user can drag an icon representing a task to a region of a priority controller icon (262, 263), which may be a rectangular strip, one end of which represents low priority and the other end of which represents high priority, to give the icon the priority of that region of the priority controller (col. 2, line 59 - col. 3, line 7; col. 4, lines 28-29). Alternatively, the

priority controller regions may be visible or invisible spatially distinguished regions of the computer screen to which the icons are dragged (col. 7, lines 6-15).[1]

Ingalls discloses a kit of computational and user interface components that can be wired together to build new functions (page 176). Applications can be built by dragging copies of components from a parts bin into a construction window and hooking the components together by their connectors (page 177). The data flow between components can be bidirectional (pages 180-181).

The examiner argues (answer, page 8):

> Ingalls provides a system for changing the directional flow of execution in a visual programming environment. The Ingalls reference teaches the concept of bidirectionality as a means for reversing task order in an iconic program. This bidirectional data flow mechanism enables a user to select/change the direction of operations in a task sequence. Clearly, this user-changeable bidirectionality feature is functionally equivalent to the claimed limitation of selecting a directional attribute for the sequencing of task objects. Accordingly, the changing execution direction, or bidirectionality as disclosed by Ingalls supplies the recited "user-changeable directional attribute" for reversing program flow in the graphical task sequencing environment.

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[1] Keller does not indicate that the relative positions of the regions are user changeable.

> The Ingalls reference demonstrates the changing of execution flow in an iconic programming arrangement. It clearly evidences the principle of changing the direction/sequencing of task objects/operations, and it is this teaching that is relied on in the obviousness combination set forth supra. The rejection cites/employs Ingalls to show the practice of altering the directional flow in an Iconic program. Simply stated, the changeable-direction aspect of Ingalls furnishes the system of Carlson with the facility for reversing the direction of the iconic field.

Ingalls' bidirectional data flow, however, does not meet the requirement of the appellant's claims for an at least two-dimensional directional field having a user-changeable directional attribute. Ingalls merely wires components together such that there is, for example, left-to-right flow for input on the left and right-to-left flow for input on the right (page 180). There is no least two-dimensional directional field which itself has a user-changeable directional attribute. Furthermore, the examiner has not explained how the applied references would have fairly suggested such a field to one of ordinary skill in the art.

Accordingly, we conclude that the examiner has not carried the burden of establishing a *prima facie* case of obviousness of the appellant's claimed invention.

DECISION

The rejection of claims 1-25 and 29-41 under 35 U.S.C. § 103 over Carlson in view of Keller and Ingalls is reversed.

REVERSED

LEE E. BARRETT)
Administrative Patent Judge)
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MICHAEL R. FLEMING) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
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TERRY J. OWENS)
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